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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/634,171	08/09/2000	Emanuel Israel Cooper	13521(ARC9-2000-0067-US1)	5758
7590	03/10/2004			
Marvin Bressler Scully Scott Murphy & Presser 400 Garden City Plaza Garden City, NY 11530			EXAMINER	
			SHEEHAN, JOHN P	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/634,171	COOPER ET AL. 	
	<b>Examiner</b>	<b>Art Unit</b>	
	John P. Sheehan	1742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003 and 20 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 28-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### **Applicants' Request to Withdraw Finality of Office Action Mailed September 15, 2003**

1. Applicant's request for reconsideration of the finality of the rejection of the Office action mailed September 15, 2003 is persuasive and, therefore, the finality of that action is withdrawn. The following action is based on the applicants' responses submitted December 15, 2003 and February 20, 2004.

### ***Claim Objections***

2. Claims 1, 29 and 30 are objected to because of the following informalities:
  - I. In each of these claims Tesla is misspelled as "Telsa" (claims 1 and 30, line 2 and claim 29, line 3).Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 10 and 28 to 30 are rejected under 35 U.S.C. 103(a) as obvious over Kakuno et al. (Kakuno, cited in the IDS submitted by the applicants on October 24, 2000) taken in view of the admitted known prior art disclosed on page 2, lines 25 to 27 of the applicants' specification and Mallary (US Patent No. 4,695,351, newly cited on the PTO Form-892 attached to this Office action).

Kakuno teaches specific examples alloys having compositions that are encompassed by the alloy composition recited in the instant claims (see Kakuno, page 3223, Figures 1 and 2; page 3224 Figure 3 and Table 1, Alloys 7 to 9). Kakuno teaches that these alloys have a very shiny surface (page 3223, left column, line 10) which is considered to be the same as the "substantially smooth bright surface" recited in claim 30 (line 3). Kakuno teaches that these alloys are made by electroplating to a thickness of 0.3  $\mu\text{m}$  (page 3222, right column, under the heading, "Experimental ", the first paragraph). Electroplating is the same process disclosed by applicants to make the instantly claimed alloy film. Further, Kakuno teaches electroplating using a current density of 10 to 50  $\text{mA}/\text{cm}^2$  (page 3223, left column, lines 1 to 5) which overlaps applicants' disclosed current density of 3 to 40  $\text{mA}/\text{cm}^2$  and applicants' preferred current density of 5 to 30  $\text{mA}/\text{cm}^2$  and completely encompasses applicants' most preferred current density of 10 to 20  $\text{mA}/\text{cm}^2$  (see instant specification, page 15, lines 25 to 32). Thus, Kakuno's alloys have compositions that are encompassed by the instant claims and are made by electroplating employing the same process conditions as applicants' disclosed method of making the claimed alloy films.

The claims and Kakuno differ in that Kakuno does not teach the following properties recited in the applicants' claims;

“being substantially free of oxygen and iron oxide”,

“anisotropic”,

“having a saturation magnetization of at least about 2.3 Tesla” (as recited in claims 1 to 10 and 28 to 30)and

In the specification at page 2, lines 25 to 27 it is disclosed that it is essential that a Co-Fe film be anisotropic in order to used in a magnetic head.

Mallary teaches that it is known to induce magnetic anisotropy in electro-deposited magnetic films by electrodepositing the film in a magnetic field (Abstract and column 2, line 65 to column 3, line 3 and column 3, lines 20 to 30).

One of ordinary skill in the art at the time the invention, knowing that it is essential that a Co-Fe film be anisotropic in order to used in a magnetic head (as disclosed in the applicants' specification, page 2, lines 25 to 27) would have been motivated to apply a magnetic field to Kakuno's electro-deposition process so as to induce the required anisotropy in the Co-Fe alloy film as taught by Mallary. Further, in view of the fact, that Kakuno's specific example alloys have compositions that are encompassed by the instant claims and are made by electroplating just as applicants' claimed alloys, using current densities that encompass applicants' preferred current densities, Kakuno's alloys would be expected to posses all the same properties as recited in the instant claims, In re Best, 195 USPQ, 430 and MPEP 2112.01.

“Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced

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by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)." (emphasis added by the Examiner) see MPEP2112.01.

Finally, with respect to the claim limitation, "being substantially free of oxygen and iron oxide", (emphasis added by the Examiner) it is the Examiner's position that use of the term "substantially" does not preclude the presence of some oxygen and iron oxide as taught by Kakuno (Page 3225, left column lines 1 to 3).

### ***Response to Arguments***

Applicant(s) arguments submitted July 17, 2003 have been considered but have been found non-persuasive.

In various forms throughout the response submitted December 15, 2003, applicants repeat the argument that the instant claims are not anticipated by Kakuno since Kakuno does not teach

"applicants' claimed cobalt-iron binary alloy electroplated film which has a saturation magnetization of at least about 2.30 Tesla, is substantially free of oxygen and iron oxide, anisotropic and consisting of a binary alloy (100%-x) Co(x)Fe, where x is between about 55% and about 75% by weight."

This is not persuasive in that in making this argument applicants have essentially repeated the claim verbatim. Thus applicants' arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a

patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In the statement of the rejection, although acknowledging that Kakuno is silent with respect to some of the properties recited in the instant, the Examiner has set forth a sound basis why one of ordinary skill in the art would expect the specific example alloys would possess the same properties as recited in the instant claims. Applicants' arguments that Kakuno does not teach,

"applicants' claimed cobalt-iron binary alloy electroplated film which has a saturation magnetization of at least about 2.30 Telsa, is substantially free of oxygen and iron oxide, anisotropic and consisting of a binary alloy (100%-x) Co(x)Fe, where x is between about 55% and about 75% by weight."

does not establish that there is an unobvious difference between Kakuno's alloy. "It is well settled that unexpected results must be established by factual evidence. Mere argument or conclusory statements in the specification do not suffice." In re Deblauwe, 222 USPQ 191, 196 (Fed. Cir. 1984). Mere lawyer's arguments and conclusory statements in the specification, unsupported by objective evidence, are insufficient to establish unexpected results." In re Wood, Whittaker, Stirling and Ohta, 199 USPQ 137, 140 (CCPA 1978).

Applicants' Declaration submitted December 15, 2003 was considered non-persuasive for the reasons set forth in the Advisory Action mailed January 21, 2004.

The second Declaration under 37 CFR 1.132 filed February 20, 2004 is insufficient to overcome the rejection of claims 1 to 10 and 28 to 30 based upon Kakuno as set forth in the last Office action because:

I. In the Declaration on page 7, in the first paragraph, reference is made to Exhibit 1. It is not clear what alloy composition each of these loops is for. It is stated that "the three loops are for the prior art film, while the forth is for the film of the present invention". However, it is not clear whether these prior art films are necessarily the alloy compositions set forth in paragraph 7 of the declaration nor is it clear that these films are made by Kakuno's process. In like manner, it is not clear what the composition is of "the film of the present invention" nor that is was actually made by the applicants' process.

II. In like manner, on page 7, the 4th line from the bottom of the page, reference is made to Exhibit 3 as directed to "the inventive sample". Again, it is not clear what the composition is of "the inventive sample" nor that is was actually made by the applicants' process.

III. On page 7, the alloy exemplifying Kakuno's alloy film was heat treated at 250<sup>0</sup>C for 8 hours. Kakuno does not disclose heat-treating the alloy films. In view of this, this heat-treated film of the declaration is not made according to Kakuno's process and therefore does not exemplify Kakuno's film. Why was the example of Kakuno's film heat-treated?

IV. On page 9 reference is made to Fe60 and Co40 films, however it is not clear how these films were made. Was the alloy film representing Kakuno's teachings made by the process set forth on pages 4 and 5 of the declaration?

V. It appears that the discussion regarding the film composition analysis on page 9 of the declaration is based on the ESCA profiles on page 10 of the declaration.



However, based on the title of the ESCA profiles, each of these ESCA profiles is directed to a Co-Fe-Rh alloy film and therefore these ESCA profiles represent neither the inventive alloy nor Kakuno's alloy. All the curves in both profiles are solid lines and thus it is impossible to discern which curve represents which element.

VI. Throughout the declaration reference is made to Kakuno's film and the inventive film but the declaration does not specify the composition of the specific film under discussion. For example, which of the Kakuno alloys set forth in paragraph 7 of the declaration is under discussion at a given point in the declaration, what inventive alloy is under discussion and how was it made? There is no description of the composition of the inventive alloys and how they were made for the purpose of the declaration.

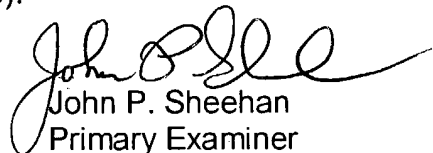
It is noted that throughout the declaration reference is made to several exhibits, however the not all the attachments to the declaration are labeled with exhibit numbers. In view of this, it is not always clear exactly what attachments are being discussed at a given point in the declaration. Although this is not a fatal flaw, it is recommended that exhibits be clearly marked.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John P. Sheehan  
Primary Examiner  
Art Unit 1742

jps